CLIMATOLOGY

Project title: Snow Pack on the Northern Range

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Objective: Evaluate variability of snow pack across YNP with emphasis on the northern range and determine sinking depths of different bearing pressures on different snow conditions.

Findings: Data collection is continuing, but data on snow water equivalent will be used in snow modeling efforts across YNP. Data on sinking depths will be analyzed at completion of project and reported in a technical paper. Preliminary results indicate snow accumulation across the northern range follows a predictable pattern but varies by season and year. On sinking depths, more dense snow will support greater bearing pressure.

Project title: Climatic Variation in the Greater Yellowstone Ecosystem: Evaluating the Evidence for Decade to Centennial Variability in Climate

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Objective: An extended record of climatic variability in the GYE will enhance our understanding of regional patterns and processes. For example, studies of the interactions between climatic variability, fire, and grazing in regulating forest stand structure and composition will be enhanced by longer and more detailed climatic histories of the region. Similarly, research on interactions of fire, climate and geomorphic processes will benefit from better information on climatic trends and variability. Finally, long-term histories of climate can inform the monitoring strategies for assessing the impact of global environmental change on mountain regions

Findings: We continue to develop chronologies for multiple species and monitor real time temperature data at several sites in the park.